CALICO GOWNS, CARPET SLIPPERS AND LADY MACBETH.

AT HOME.

THE THREE RURAL SOUBRETTES.

IN FARM ATTIRE.

Fresh from the Farm the Cherry Sisters Expect New York to Think They Outclass Bernhardt.

One day I had a beau,
All with a black mustache he wore,
And when he asked me to go to church
I shyly said I will if I can.

This extraordinary poem is one of the masterpieces of Miss Effie Cherry. It is Miss Effie Cherry who writes the plays and the songs for the four Cherry sisters, who will flash across Hammerstein's Olympia next week as stars of the first magnitude. A newspaper in Cedar Rapids, Iowa, began its criticism of a performance given by the Cherry sisters there by saying: "The Cherry sisters are the funniest things that ever happened." This is indorsed by all who have seen them. The memory of James Owen O'Connor is still green in the minds of many New York theatre goers—as green as the cabbages which were thrown at him while he sonorously spouted Hamlet. James Owen O'Connor was funny because he took himself very seriously. There are four of the Cherry sisters who appear upon the stage, and they all take themselves seriously, therefore they are three times as funny as Mr. O'Connor. They have been before the public for four years, playing principally in the little country towns of Ohio, Indiana and Iowa. It is said that they have [illegible] yet been permitted to finish a performance. [illegible] been asked or suggested that they do as O'Connor did and play behind a net, but they have not yet adopted this idea.

They are unquestionably very funny, but the episode is not without its pathos. This is the story of the Cherry sisters: They were born and brought up on a remote farm near Marion, Iowa. Their father, a typical Iowa farmer, managed to support them in greater idleness than most farmers' daughters know. The girls had crude longings after such education and culture as they may have read of in the weekly paper coming to their house. These the old man satisfied as well as he could by buying other cheap publications. The girls read of actors and actresses; they learned about the stage and the theatre, and the subject fascinated them. They bought "school speakers" and commonplace recitation books, and had great rehearsals out behind the barn, with the haystack as scenery and the cattle for an audience. They studied as hard and intelligently as they knew how to study, and they became convinced that they were really great artists buried by cruel fate in the deep depths of an Iowa farm. One of the sisters convinced herself that she could write much better things than those which were printed in the recitation book. Her sisters thought so, too. None of them had ever been in a theatre or had ever seen a live professional.

By and by the father became crippled. The mother died. The girls could not run the farm. They mortgaged it. Things looked black. Then it was that they decided to turn into gold these marvellous talents which in the solitude of their lonely farm life they had discovered. Four years ago they walked to Marion and from there took the electric car to Cedar Rapids. They wore carpet slippers made at home, white stockings, calico skirts and sunbonnets. They were not beautiful. Their baggage consisted of newspaper parcels, and a bit of their innocence of any life except that of the farm on which they had been reared was shown by the fact that a folded paper, preciously concealed, contained a receipt for the removal of warts which they expected to profitably sell.

They had written to the local theatre, and, announcing themselves as "Queens of Comedy and Song," had arranged to give an entertainment. They gave it. It was a great sensation, for Cedar Rapids rose in revolt against their art. Missiles were thrown, and the show ended in confusion. But the Cherry sisters were not discouraged. All the country papers round about had columns concerning their show, and, while they regarded the editors of the newspapers as mendacious rascals who told things other than the truth, they were flattered by the attention which they had attracted. They gave other shows. Missiles were always thrown and the shows always ended in confusion, but the crowd liked to go and was willing to pay its way in, so by and by the Cherry sisters had earned a good deal more than enough money to pay off the mortgage.

Now their fame has spread to New York, and Mr. Hammerstein has brought them here. They arrived Wednesday. They are convinced that their great opportunity has come. It is their belief that New York recognizes in them startling artists. They have really no conception that their work is ridiculous—their belief in their own ability is as strong as ever. It is very funny, but it is also pitiful.

The girl who stays at home and writes the songs is a wonder. Here is one of her productions:

Oh! boys, hear my sweet voice,
For the while I have a story to relate.
I will tell you of my joys,
It's about a picnic in Marion, Iowa State.
There a youth approached me as I swung
And talked of kissing and how my lips he'd press.
He begged for only one, and at last I did consent;
He teased so hard I had to answer "Yes."
But there were others.

It will be observed that Effie does not bother with such things as rhyme or measure. She goes ahead quite regardless of either. She also does other strange things. She "writes" tableaus. She has written a "Trilby" tableau, which she assured the Journal correspondent in Iowa was her very greatest work. She naively added that she had written it at one sitting, with no other refreshment than a piece of currant cake and a glass of buttermilk. This "Trilby" tableau has been the central feature of the Cherry sisters' performances this year. Jessie Cherry is the Trilby. Her military overcoat is made of canton flannel, and was worn by an enthusiastic politician belonging to the Keokak Flambau Club, during the campaign of 1892. She "does her hair French." It makes her look like a Zulu, but she does not think so. She thinks it makes her look like Trilby. She still wears the rag-carpet slippers, nor has she discarded the white stockings. She is said to be the youngest of the sisters, but she is not too young. The Cherry sisters never use an orchestra; they earnestly believe that the compositions of Addie Cherry (she writes the music) are too subtle even for the baton of a man like Theodore Thomas. Perhaps they are. After delightedly listening to one of these songs by the sister, she added: "And to think that I wrote it with my left hand!"

This season they for the first time have the luxury of a new manager. He lives at Boon, Iowa, when he is at home, and he is delighted with the press notices which his stars receive. The breezy freedom of the Western newspaper has carried some of these notices to a point which will not be understood in the East. The girls themselves, however, seriously object to being called horses, and they protest against the accuracy of the designation, "club-faced old maids." At one time they were singing an opera which they called "Edna Carlisle; or, Flossie's Violet." The scenery consisted of a cracker box and thirty feet of clothesline. One of the sisters wore a beard made of yellow thread, and pretending to be a man, although she still wore her calico dress. The finale of the piece was Edna's entrance into the new Jerusalem. They worked it out by having Lizzie climb a step-ladder and wave her arms in beckoning to the angels as the curtain fell. The notices of this opera were so bitter that the girls started to sue some of the Western papers, but thought better of it.

Here is the song which they invariably sing at the end of each performance:

Cherries red and cherries ripe;
Cherrys' show is out of sight;
Cherries ripe and cherries red,
Cherry's show is still ahead.

And Oscar Hammerstein has brought the Cherrys' show to New York.

How to Eat Scientifically.

Prof. Jaffa, of the University of California, Devises a Mathematical Schedule of Diet.

Professor M. E. Jaffa, of the University of California, has been making a careful investigation of the subject of diet. He has performed a long series of experiments for the purpose of discovering just what are the properties of various foods that make them valuable as articles of diet. He has discovered that variety in the food we eat is quite necessary in order not only to maintain the digestive organs in their full perfection, but to supply the differing properties that the human organism requires to perform the multifarious functions of daily life.

Professor Jaffa has found that the majority of people eat in utter disregard of the requirements of their physical structure. They throw into their stomachs a heterogeneous mass of foods, regardless of the relations of these foods to each other and of the special properties which their bodies require. He says in his report just issued:

"How long will we continue to eat merely to satisfy our hunger—eating anything that comes in our way, anything that pleases our taste, without regard to special conditions or special needs? And yet this is what the large majority of people do. How many men are there in the ordinary walks of life who give even a passing thought to the character of food they require—whether more nitrogenous or starchy, or, indeed, even as to how much they need to keep them in a vigorous, healthy condition?

"How many of us who are even in the midst of chemical research, and who dwell in an intellectual atmosphere, give any attention to the subject of eating, or make any attempt to regulate our diet according to the scientific data at our command? The causes of this neglect are twofold: First, our natural conservatism prompts us to continue to eat what we always have eaten; and, second, we are ignorant both of the kinds and composition of the food needed and the required relative quantity of each.

"We all know," says Professor Jaffa, further along in the same report, "that the young body, animal or human, requires food to supply the material necessary for its growth. But beyond this, and continuing during and past the growing stage, there is a current wearing out and breaking down of all the various tissues of the body. This loss must be supplied in order to keep the animal in a normal, healthy condition. Not only must the worn-out tissues be replaced, but the material, used as fuel in producing the energy necessary for carrying on an voluntary and involuntary functions, must also be supplied.

"A man who is doing hard physical work is using up a great deal of fatty tissue, as well as muscle; but a man who is doing nothing (making no voluntary exertion) also experiences a loss of tissue through the constant production of the heat necessary for the maintenance of the normal body temperature, and also for the performance of all the involuntary functions of the body."

Professor Jaffa has found that by the use of a mathematical schedule he has prepared it is now possible to eat scientifically. If you want to be healthy, you must now take your food according to schedule. Dinner is now to be served in accordance with a table of statistics as accurate as the balance sheet of a banking institution, and breakfast must be eaten in conformity with the multiplication table.

A calorimeter was used by Professor Jaffa in finding out how the various articles of diet differed from each other, so that he might accurately prepare these tables. In general, the calorimeter consists of a vessel, bomb-shaped, according to the latest design. This was immersed in a vessel containing two litres of water, which vessel was surrounded by an empty cylinder enveloped in its turn by another empty vessel. As a protection to these, there was still another cylinder containing water. The outside of this cylinder is lined with a thick layer of felt.

There were thus a layer of felt, one of water, and two of air between the calorimetric apparatus proper and the external air. The material burned was placed in a platinum capsule in the "bomb" and ignited in presence of compressed oxygen by means of an electric spark. A very finely graduated thermometer was connected with the vessel containing the two litres of water, and the heat imparted to the water and indicated by the thermometer measured the fuel value of the food-material burned.

One of the most interesting tables prepared by Professor Jaffa is the following, showing just what kinds of food you should eat in order to extract the utmost benefit therefrom. It shows:

AMOUNTS, IN PARTS OF AN OUNCE, OF NUTRIENTS IN ONE OUNCE OF DIFFERENT FOODS.

	Water.	Nutrients (ounces.) Total.	Muscle formers.	Fat.	Fatty fuels.	Miner'l matters.	Fuel value of one ounce.
1. Beef—Roast rib..	.380	.408	.122	.270	....	.007	88
2. Beef—Sirloin	.480	.322	.150	.164	....	.008	61
3. Mutton—Leg	.508	.313	.150	.156	....	.007	58
4. Mutton—Loin	.415	.427	.126	.295	....	.006	93
5. Veal—Shoulder ..	.567	.254	.166	.079	....	.009	16
6. Pork—Fresh, sh'l'r	.430	.424	.136	.280	....	.008	99
7. Pork—Ham	.368	.518	.148	.346	....	.024	108
8. Chicken	.446	.172	.151	.012	....	.009	21
9. Turkey	.447	.229	.161	.059	....	.009	34
10. Eggs (in shell)..	.738	.262	.140	.105	....	.008	45
11. Fish—Codfish	.585	.116	.106	.002	....	.048	13
12. Salmon	.406	.241	.143	.088	....	.010	40
13. Halibut	.614	.204	.151	.044	....	.009	29
14. Mackerel	.404	.150	.100	.043	....	.007	22
15. Flounder	.272	.060	.052	.003	....	.005	7
16. Oysters	.871	.129	.060	.012	.037	.020	14
17. Crab	.771	.220	.178	.020	....	.031	26
18. Sausage—Bologna	.624	.376	.188	.158	....	.030	63
19. Milk	.870	.130	.036	.040	.047	.007	20
20. Cheese—Full cr'm	.302	.698	.283	.355	.018	.042	.129
21. Skim milk.....	.413	.587	.384	.068	.060	.046	78
22. Butter	.129	.875	.080	.011	.779	.005	102
24. Graham flour....	.121	.879	.085	.019	.758	.015	103
23. Wheat flour.....	.105	.895	.010	.850	.035	.030	220
25. Oatmeal	.150	.850	.092	.038	.706	.014	103
26. Cornmeal	.124	.876	.074	.004	.794	.004	102
27. Rice.....	.123	.877	.267	.017	.564	.029	98
28. Peas (dried).....	.126	.874	.231	.020	.592	.031	101
29. Beans (dried).....	.789	.211	.021	.091	.179	.010	23
30. Potatoes—"Irish"	.711	.289	.015	.004	.260	.010	33
31. Potatoes—Sweet..	.886	.114	.011	.004	.080	.010	13
32. Carrots	.875	.125	.014	.003	.102	.006	14
33. Onions	.781	.219	.040	.006	.010	.009	25
34. Green peas.....	.872	.128	.022	.004	.094	.008	15
35. String beans.....	.813	.187	.028	.011	.014	.000	22
36. Green corn.....	.960	.040	.008	.004	.023	.003	5
37. Tomatoes	.905	.095	.024	.004	.053	.014	10
38. Cabbage	.020	.080	....	....	.078	.002	114
39. Sugar	.323	.677	.004	.017	.657	.000	80
40. Bread	.892	.168	.062	.004	.159	.003	20
41. Apples	.880	.120	.008	.112	....	....	14
42. Oranges	.800	.200	.008	.187	....	.005	23
43. Prunes (all).....	.850	.150	.010	.135	....	.005	18
44. Apricots	.790	.210	.015	.189	....	.006	24
45. Figs	.800	.200	.013	.162	....	.005	23
46. Grapes	.580	.420	.011	.276	.116	.017	88
47. Olives.....	.025	.975	.143	.039	.162	.010	202
48. Walnuts	.053	.947	.176	.562	.191	.018	191
49. Almonds	.050	.920	.280	.400	.230	.020	
50. Peanuts							

Exact Amount of Nutriment in Beef, Bread, Oatmeal, Potatoes, Onions and Fruit.

Professor Jaffa then proceeds to illustrate the use of this table by saying that the standard is .28 pounds of protein or flesh-forming ingredients, .28 pounds of fat and .90 pounds of fatty fuels or carbohydrates, with a fuel value of 3500 calories expressed in ounces as 4.48 ounces of protein, 4.48 ounces of fat and 15.84 ounces of carbohydrates or fatty fuels.

"Suppose," says he, "we have mutton, salmon, potatoes, butter, bread and flour to choose from. The first thing to do is to glance at the composition of these materials in the tables and to make a rough estimate at the amounts in pounds or ounces of each needed, bearing in mind the usual proportions consumed in the ordinary household. Then we calculate the proportions of the different ingredients in the estimate and compare them with the standard adopted.

"Suppose we can eat eight ounces of mutton. On the table we find it No. 4, and we multiply by eight the figures given for one ounce. Then we do the same for the other articles. Thus we make out a little table and find that we have 3.76 of muscle formers, 4.96 of fat, 14.28 of fatty fuels and a fuel value of 3402. From this little table we see that the protein, or muscle former, is lacking, and that the fuel value is slightly below the standard. To remedy this defect we add some one article specially rich in protein. Suppose we take for the purpose 1½ ounces of skim-milk cheese. This single item brings us up to the required standard."

Here is a model regimen prepared by Professor Jaffa from the foregoing table and showing what a scientific diet should be like:

No. in table.	Am't used. Ounces.	Material.	Muscle formers.	Fat.	Fatty fuels.	Fuel values.
2	14	Steak	2.10	2.33	....	854
22	2	Butter	.02	1.70	.02	452
19	28	Milk	.90	1.12	1.23	579
30	16	Potatoes	.24	....	2.86	375
40	16	Bread	1.03	.27	9.39	1,250
	76		4.48	5.42	13.55	3,511

This, he says, happens to be a well-balanced dietary; and is one in which the nitrogenous and non-nitrogenous materials are in the proper proportions.

As another example, he takes oatmeal, bread, eggs, sweet potatoes, butter, sugar, chicken and rice, as follows:

Number in Table.	Amount Used. Ounces.	Material.	Total Nutrients.	Muscle formers.	Fat	Fatty Fuel.	Fuel Value.
25	4	Oatmeal	3.63	.64	.32	2.72	460
40	16	Bread	10.83	1.63	.27	9.39	1,280
10	4	Eggs	.93	.48	.41	....	164
31	8	Sw't Potatoes	2.31	.12	.03	2.08	295
22	3	Butter	2.69	.03	2.55	.01	673
39	3	Sugar	2.94	....	....	2.93	342
3	8	Chicken	1.30	1.21	.09	....	165
27	2	Rice	1.75	.15	.01	1.59	304
	48		26.43	3.66	3.68	18.72	3,558

"This," says Professor Jaffa, "is a dietary with about the right value, but it is lacking in the muscle-forming element, as seen by the low figure for protein. Yet it is not by any means an uncommon one, and most people would consider themselves well fed on it. The lack of protein could be very easily remedied by substituting beans for the rice, as this change would increase the nitrogenous element, and, at the same time, decrease the amount of starch. If beans are not relished, and rice is preferred with chicken, the same result may be obtained by reducing the amount of sweet potato to one-half, and in the place of it substituting a concentrated soup of dried peas. Thus, in many ways could this incorrect dietary be regulated, without making any very radical change."

Professor Jaffa illustrates his system by supposing that one man eats in a single day, of steak, 13 ounces; butter, 3 ounces; potatoes, 6 ounces, and bread, 22 ounces. This constitutes a well-balanced dietary. But the man who takes of pork chops, 8 ounces; liver, 8 ounces; one egg; butter, 3 ounces; milk, one cup; potatoes, 12 ounces; turnips, 4 ounces; corn, 4 ounces; oatmeal, 1 ounce; rice, 1 ounce; wheat flour, 4 ounces; graham flour, 2 ounces, and sugar, 3 ounces, would have a dietary no better in any way, as they both contain the same amount of protein, 4.48 ounces, with 3,500 caloric fuel value. The latter, however, might prove more pleasing to the palate, which is worth considering. At the same time, it might also prove more expensive, or harder on the stomach.